

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A flexible membrane for a resistive touch screen display, said flexible membrane comprising:
a glass laminate, wherein said glass laminate consists of:
an ultra-thin glass layer having upper and lower surfaces and a peripheral edge therebetween; ~~and~~
a polymer layer having upper and lower surfaces and a peripheral edge therebetween;
an adhesive between said glass layer and said polymer layer for bonding the two layers together, said glass layer being smaller than said polymer layer wherein said peripheral edge of said glass layer lies within said peripheral edge of said polymer layer;
~~wherein said touch-screen flexible membrane further comprises comprising an area insulator layer applied in a peripheral band to said lower surface of said polymer layer between said polymer layer and said adhesive; and~~
~~wherein said area insulator layer comprising comprises~~ an ultraviolet ink film.
2. (Cancelled)
3. (Previously presented) The membrane of claim 1, wherein said adhesive seals around said peripheral edge of said glass layer.
4. (Previously presented) The membrane of claim 1, wherein said glass layer is approximately 0.5 mm thick.
5. (Previously presented) The membrane of claim 1, wherein said polymer layer comprises a polyester film approximately 0.175 mm thick.

Claims 6-8 (Cancelled)

9. (Previously presented) The membrane of claim 1, wherein said adhesive is an optical adhesive formed in a uniform thickness in the range of approximately 0.025 to 0.05 mm in the area between said glass layer and said polymer layer.

10. (Cancelled)

11. (Currently Amended) In a touch screen having a flexible outer membrane with a first ~~conducting~~ conductive surface, a backing surface with a second conductive surface, and sensors to detect contact between the first ~~conducting~~ conductive surface and the second ~~conducting~~ conductive surface, the improvement comprising~~[[:]]~~ the flexible outer membrane, wherein the flexible outer ~~layer~~ membrane consists of:

an ultra-thin glass layer having upper and lower surfaces and a peripheral edge therebetween;

a polymer layer having upper and lower surfaces and a peripheral edge therebetween;

an adhesive between said glass layer and said polymer layer for bonding the two layers together, said glass layer being smaller than said polymer layer wherein said peripheral edge of said glass layer lies within said peripheral edge of said polymer layer; and

~~wherein said touch screen further comprises an area insulator layer between said polymer layer and said adhesive, and applied in a peripheral band to said lower surface of said polymer layer.~~

~~wherein said area insulator layer comprising comprises an ultraviolet ink film.~~

12. (Cancelled)

13. (Previously presented) The touch screen of claim 11 wherein said optical adhesive is allowed to build up around said peripheral edge of said glass layer.

14. (Previously presented) The touch screen of claim 11, wherein said glass layer is approximately 0.5 mm thick.

15. (Previously presented) The touch screen of claim 11, wherein said polymer layer comprises polyester film approximately 0.175 mm thick.

Claims 16-18 (Cancelled)

19. (Previously presented) The touch screen of claim 11, wherein said adhesive is an optical adhesive formed in a uniform thickness in the range of approximately 0.025 to 0.05 mm in the area between said glass layer and said polymer layer.

Claims 20-21 (Cancelled)

22. (Previously presented) The touch screen of claim 32, wherein said glass layer is approximately 0.5 mm thick.

23. (Previously presented) The touch screen of claim 32, wherein said polymer layer is a polyester film.

24. (Previously Presented) The touch screen of claim 23, wherein said polyester film is approximately 0.175 mm thick

Claims 25-26 (Cancelled)

27. (Previously presented) The touch screen of claim 32, wherein said adhesive is an optical adhesive formed in a uniform thickness in the range of 0.025 to 0.05 mm in the area between said glass layer and said polymer layer.

28. (Cancelled)

29. (Previously presented) The touch screen of claim 32, wherein said adhesive forms a bead about the peripheral edge of said glass layer.

30. (Previously presented) The touch screen of claim 32, wherein said elastic tensioner comprises a silicon rubber.

31. (Cancelled)

32. (Currently amended) A resistive touch screen display, said display comprising:
a flexible membrane, wherein said flexible membrane consists of:
an ultra-thin glass layer having upper and lower surfaces and a peripheral edge therebetween;
a polymer layer having upper and lower surfaces and a peripheral edge therebetween, said glass layer being smaller than said polymer layer wherein the peripheral edge of said glass layer lies within the peripheral edge of said polymer layer;
an adhesive between said glass layer and said polymer layer for bonding the two layers together;
a backing surface;
a pressure sensitive adhesive affixed between the periphery of said polymer layer and said backing surface;
an elastic ~~tensioner~~ tensioner affixed between the periphery of said polymer layer and said backing surface, said elastic tensioner being adjacent to said pressure sensitive adhesive;
a first conductive layer applied to said lower surface of said polymer layer;
a second ~~conductive~~ conductive layer applied to ~~said~~ said backing surface;

sensors used to detect where said first conductive layer contacts said second conductive layer; and

~~wherein said touch screen further comprises~~ an area insulator layer between said polymer layer and said pressure sensitive adhesive; and

~~wherein~~ said area insulator ~~comprises~~ comprising an ultraviolet ink film.

Claims 33-35 (Cancelled)

36. (Currently Amended) A flexible membrane for a resistive touch screen display, said flexible membrane comprising:

~~a glass laminate, wherein said glass laminate consists of:~~

an ultra-thin glass layer;

a polymer layer having upper and lower surfaces;

an optical adhesive between said ultra-thin glass layer and said upper surface of said polymer layer, said optical adhesive holding said ultra-thin glass layer to said polymer layer; and

an insulating film of ultraviolet ink applied in a peripheral band to said lower surface of said polymer layer.

37. (Previously presented) The membrane of claim 36, said polymer layer being larger than said glass layer to extend beyond the periphery of said glass layer.

38. (Previously presented) The membrane of claim 37, wherein said optical adhesive is allowed to build-up about said periphery of said glass layer.

39. (Previously presented) The membrane of claim 36, wherein said glass layer is approximately 0.5 mm thick.

40. (Previously presented) The membrane of claim 39, wherein said polymer layer is a polyester film approximately 0.175 mm thick.

41. (Previously presented) The membrane of claim 40, wherein said optical adhesive is formed in a uniform thickness in the range of 0.025 and 0.05 mm between said glass layer and said polymer layer.

42. (Currently Amended) In a touch screen having a flexible outer membrane with a first ~~e~~conducting conductive surface, a backing surface with a second conductive surface, and sensors to detect contact between the first ~~e~~conducting conductive surface and the second ~~e~~conducting conductive surface, the improvement comprising:

the flexible outer membrane, wherein said flexible outer ~~layer~~ membrane consists of:
an ultra-thin glass layer;
a polymer layer having upper and lower surfaces;
an optical adhesive between said ultra-thin glass layer and said upper surface of said polymer layer, said optical adhesive holding said ultra-thin glass layer to said polymer layer; and
an insulating film of ultraviolet ink applied in a peripheral band to said lower surface of said polymer layer.

43. (Previously presented) The touch screen of claim 42, said polymer layer being larger than said glass layer to extend beyond the periphery of said glass layer.

44. (Previously presented) The touch screen of claim 43, wherein said optical adhesive is allowed to build-up about said periphery of said glass layer.

45. (Previously presented) The touch screen of claim 42, wherein said glass layer is approximately 0.5 mm thick.

46. (Previously presented) The touch screen of claim 45, wherein said polymer layer is a polyester film approximately 0.175 mm thick.

47. (Previously presented) The touch screen of claim 46, wherein said optical adhesive is formed in a uniform thickness in the range of 0.025 and 0.05 mm between said glass layer and said polymer layer.

48. (Previously presented) A resistive touch screen display, said display comprising:
a flexible membrane, wherein said flexible membrane consists of:
an ultra-thin glass layer;
a polymer layer, said polymer layer being larger than said glass layer to extend beyond the peripheral edges of said glass layer by a predetermined distance in each direction; and
an optical adhesive between said ultra-thin glass layer and said polymer layer, said optical adhesive holding said ultra-thin glass layer to said polymer layer;
a backing surface;
a pressure sensitive adhesive affixed between the periphery of said polymer layer and said backing surface;
an elastic tensioner affixed between the periphery of said polymer layer and said backing surface, said elastic tensioner being adjacent to said pressure sensitive adhesive;
a first conductive layer applied to said lower surface of said polymer layer;
a second conductive layer applied to said backing surface;
sensors used to detect where said first conductive layer contacts said second conductive layer; and
an area insulator layer between said polymer layer and said pressure sensitive adhesive, said area insulator comprising an ultraviolet ink film.

49. (Previously presented) The touch screen of claim 48, wherein said optical adhesive is allowed to build-up against said peripheral edges of said glass layer.

50. (Previously presented) The touch screen of claim 48, wherein said glass layer is approximately 0.5 mm thick.

51. (Previously presented) The touch screen of claim 50, wherein said polymer layer is a polyester film approximately 0.175 mm thick.

52. (Previously presented) The touch screen of claim 51, wherein said optical adhesive is formed in a uniform thickness in the range of 0.025 and 0.05 mm between said glass layer and said polymer layer.

53. (Previously presented) The touch screen of claim 48, wherein said ultraviolet ink film is applied in a band to extend inwardly, by predetermined amount, onto said lower surface of said polymer layer relative to said pressure sensitive adhesive to provide a zone of insulation between said lower surface of said polymer layer and said backing surface inwardly adjacent of said pressure sensitive adhesive.